
JOB HAZARD ANALYSIS

JOB: Filling Reduction/Combustion Tube on CHN

DATE: 6/30/99

MODIFIED: 4/25/2002 by Sarah Jablonski

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Recommended Protective Clothing and Equipment:

Lab coat, goggles, gloves, and a fume hood

Sequence of Basic Job Steps	Potential Accidents/Hazards	Recommended Safe Job Procedures
Place wad of silver-coated gauze in the outlet end of a new reduction tube	Dropping the glass reduction tube, breaking glass	Wear proper PPE (lab coat, gloves, glasses)
In a fume hood, take a wad of quartz wool and place in the bottom of the reduction tube using glass rod	Inhalation of quartz wool fragments	Use a fume hood and PPE (listed above)
Pack three vials of reduced copper granules in the tube on top of the quartz wool	Breaking glass vial, spill of copper granules	Work in a hood with gloves
Place another quartz wool spacer on top of the copper granules	Inhalation of quartz wool fragments	Use a fume hood and PPE
Pack the rest of the tube with Copper Plus reagent	Spilling Copper Plus	Work in a hood with PPE
Place copper plug on top		
Place in CHN analyzer	Dropping the glass reduction tube	Wear PPE

A similar procedure is used to fill combustion tubes, except using EA 1000, silver tungstate on magnesium oxide, and silver vanadate, and a wire vial receptacle. The same hazards and safety procedures apply.

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